value has been done for the advancement of otology, one expects to find mention at least of that which fairly may be described as epoch-making. Yet the pioneer work of Lake, Marriage, Armour, and Yearsley in operations upon the labyrinth for the relief of distressing and incurable vertigo and tinnitus receives no attention, whilst the still more recent researches of Bárány are barely noticed, and those of West, Scott, Crum-Brown, and Alexander are passed over in silence.

For the work as a text-book we can speak with moderate approbation. There is no dissertation upon anatomy to swell the book, but the author plunges straightway into methods of examination and diagnosis. This portion is not too much padded with unnecessary pictures of instruments, and the diagrams are adequate, with the exception of Fig. 13, which is exaggerated and wholly unnatural. A considerable number of pages is devoted to the functional testing of the ears, and this appears to be treated very fully and exhaustively. In dealing with anomalies of the hearing, a series of useful charts is given from actual cases. In treating of the various diseases of and operations upon the ear, we can find no mention of the use of the hand-gouge in place of the chisel and mallet in performing operations upon the mastoid, an improvement in technique which we owe to British surgery. We fully approve of the classification of otosclerosis with diseases of the bony labyrinthine capsule. This is a distinct advance upon those text-books which continue to describe it as a middle-ear condition.

An excellent section deals with the effects of general diseases upon the ear, and another is devoted to the toxic effects of quinine, the salicylates, iodide of potassium, arsenic, aspirin, chloroform, tobacco, alcohol, mercury, silver, carbon dioxide, and phosphorus. Sections such as these are so rarely met with in the works of specialists that they deserve unstinted praise.

It is disappointing to find so important a subject as deaf-mutism dismissed in four pages.

The volume is an average text-book, and deals with its subject in an average manner, but it does not add markedly to the now voluminous literature of otology. As a guide for the student and junior practitioner, it will, no doubt, find a useful place.

OUR BOOK SHELF.

Zenographical Fragments, II. The Motions and Changes of the Markings on Jupiter in 1888. By A. Stanley Williams. Pp. xiii+104; 9 plates. (London: Taylor and Francis, 1909.)

MR. WILLIAMS has been known for about thirty years as a very painstaking planetary observer, and, considering the small sizes of his telescopes ($5\frac{1}{4}$-inch and $6\frac{1}{2}$-inch reflectors), his results have been remarkable in their comprehensiveness and importance. To Jupiter especially Mr. Williams has devoted attention, and, as a continuation or supplement to the "Zenographic Fragments" which he published twenty years ago, and dealing with his observations in 1887, has now issued a similar contribution for 1888. The individually observed transits of the various spots are given, and the periods of rotation are derived and compared with the results of 1887 and subsequent years. In 1888 the number of spots followed with sufficient fulness and accuracy to enable their rotation period to be well determined was 76. Of these, 48 were equatorial markings, and 15 were north tropical spots. The power used on the telescope was 150, and consisted of a single plano-convex lens. The planet was badly situated for observation, its meridian altitude only slightly exceeding 20° even in the south of England.

Notwithstanding the difficulties encountered, however, Mr. Williams succeeded in securing a mass of useful observations, the number of spot-transits recorded being 888. These are carefully discussed, and the results presented in a series of tables. The rotation periods deduced during the opposition of 1888 are included with many others by Mr. Williams and other observers in later years in summaries exhibiting the changes of relative velocity from year to year. It is by comparisons of this character extending over a long period of time that we may hope finally to unravel the problem offered by the changing scenery of Jupiter's vaporous envelope and by the remarkable series of different currents circulating in various latitudes. A number of painstaking observers, including Mr. Williams, Prof. Hough, Major Molesworth, Rev. T. E. R. Phillips, Mr. Bolton, and others, have accumulated extensive materials, to this end, during the past quarter of a century, but much more remains to be done.

The comparisons which Mr. Williams has instituted at the end of his volume are not so valuable as they might have been in consequence of omissions in quoting the results of various observers. Thus, in the table of rotations of spots in the south equatorial current, Mr. Phillips's values for 1898 and 1906–7 are given, but similar figures for the intervening years are not mentioned at all. Similarly the writer's rotation periods for 1905–6 (*Monthly Notices*, vol. lxvi., p. 434) are altogether omitted. On the whole, however, Mr. Williams's new contribution to zenographic study is very valuable and ably executed. There are few typographical errors, and the volume is well got up, while the illustrations are excellent, though the differences between the light and dark markings are intensified, perhaps purposely, to assist the eye in noting the details more readily.

W. F. D.

Introduzioni Teoriche ad Alcuni Esercizi Pratici di Fisica. By Alfonso Sella. Edited by A. Pochettino and F. Piola. Pp. viii+133. (Firenze: Successori Le Monnier, 1909.) Price 2.50 lire.

THIS is a short treatise on a few selected subjects of practical physics. They comprise the testing of a balance and calibration of a thermometer tube, the measurement of specific heat by the method of mixtures, the determination of the constants of a ruled grating, the measurement of magnetic field-intensity and its horizontal component, and the use of the Wheatstone bridge and the quadrant electrometer. The various problems involved are treated very fully, but in a purely theoretical manner, evidently intended to point out to the instructor the difficulties and limitations likely to be encountered. Thus, in the determination of a magnetic field, the lack of uniformity is dealt with at exceptional length, and the mathematical reasoning is given in full at every step. In the measurement of the magnetic quantities M and H, account is taken of such sources of error as the rigidity of the suspending fibre, and the variation of the magnetic moment and the moment of inertia with the temperature. In adding the dimensional equations, the author unfortunately adheres to the old practice of expressing them in terms of M, L, and T only. That $M/H = L^3$ (*recte* L^3) implies that it has something to

© 1909 Nature Publishing Group

do with a volume, but conveys no information concerning the physical constitution of the quantities in question.

The whole of the work dealt with belongs to the second term of the physics course in the University of Rome. The author compiled it while yet Prof. Blaserna's assistant. His untimely death after succeeding to the chair prevented him from publishing it himself, but that duty has been admirably carried through by his two able disciples.

Azimuth. By G. L. Hosmer. Pp. v+73. (New York: John Wiley and Sons; London: Chapman and Hall, Ltd., 1909.) Price 4*s*. 6*d*. net.

THIS work is avowedly not a text-book; it is a handbook for the practical surveyor, and, as such, should prove very useful. Prof. Hosmer gives just the ordinary methods for checking the angles of a survey by observation of the sun and stars, but the book is removed from the commonplace by the conciseness of its instructions and the numerous practical hints given at all the necessary points. The tables for computing the results are given in the latter part of the book, and the examples are worked out on specimen forms calculated to obviate clerical errors.

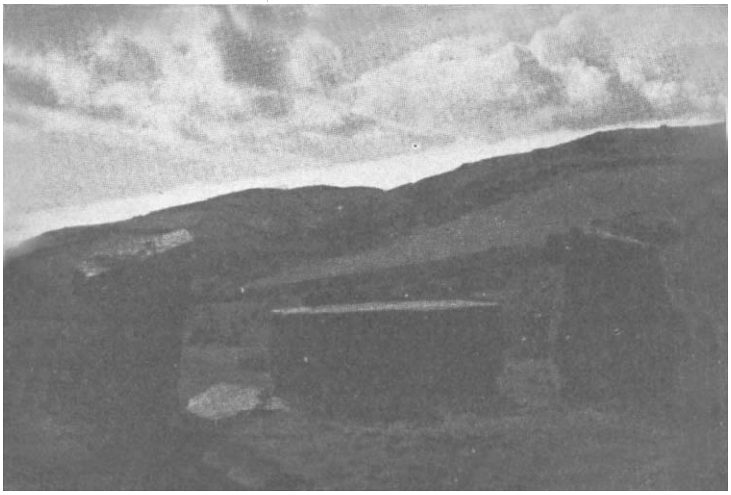
The book is nicely printed, illustrated with useful diagrams, and well bound. These features, combined with its handy size, make it a very useful work for the practical surveyor to carry with him as a pocket-book for easy reference. W. E. R.

LETTERS TO THE EDITOR.

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of* NATURE. *No notice is taken of anonymous communications.*]

Notes on a Stone Circle in County Cork.

IN view of several references made in NATURE lately to stone circles in Ireland (vol. lxxix., p. 488, February 25), the following notes on one situated at Drumbeg, near Glandore, County Cork, may prove of interest, especially as this circle contains the characteristic "recumbent stone" of the "Aberdeenshire" type in the south-western half of its circumference, a feature not hitherto met with outside that locality.



Drumbeg Circle. Recumbent stone and supporters, viewed from centre of circle, showing notch in hills (solstitial sunset line).

The accompanying photograph shows this stone and its supporters, of which the following dimensions may be given:—recumbent stone, 7 feet long, 1 foot 8 inches deep, 2 feet 6 inches high; right supporter, 4 feet 8 inches high, 1 foot 9 inches deep, 3 feet wide; left supporter, 5 feet high, 1 foot 6 inches deep, 3 feet wide.

The circle stands on a hill-side facing the sea, upon an artificial plateau with a well-defined edge, 160 feet long, on the southern (seaward) side. This edge, otherwise straight, is indented by a "cove" 20 feet in length, directed towards the centre of the circle, which it almost touches externally on its southern side.

A row of four small ovals, and mounds of stones (probably burial-sites), lie in a line a short way outside the plateau to the south-eastward. The remains of (?) a hut-circle of rough stones occur at a distance of 170 feet westward from the main circle, and there is a large solitary outlying boulder situated on a small eminence 100 feet to the north-eastward.

The following astronomical features (sight-lines) are observable in the above remains:—

(1) From the recumbent stone; solstitial summer sunrise over one of the two most important stones of the circle; sky-line elevated 3° 40′. (This line passes almost over the outlying boulder.)

(2) From the same position, May sunrise over the second of the two important stones; hill-line elevated 2° 20′.

(3) From same position (or from centre of circle, see photograph), solstitial winter sunset over a conspicuous gap in the hills, distant one mile.

(4) Edge of the plateau lies in the line of May sunrise or November sunset.

(5) Side of the cove is directed to the solstitial summer sunset over centre of circle, nearly.

(6) Line of stone ovals, outside plateau, is practically that of May-sunrise.

(7) From centre of (?) hut circle, over the northernmost stone of circle (a slab with a rounded profile, thus differing from the remainder, which are of "pillar" form), to the outlying boulder, is the May-sunrise line.

There are no indications of a burial-mound in the centre of the circle. BOYLE T. SOMERVILLE.

Admiralty Survey Office, Tenby, S. Wales.

Musical Sands in Chile.

THE interesting letter of Mr. Carus-Wilson, dealing with the existence of musical sands, suggests to me that some fact in my experience relating to this subject may be worth putting on record, and may, through the courtesy of your columns, possibly lead to the elucidation of an occurrence which has hitherto lacked explanation, at least in my mind.

Some few miles to the west of the town of Copiapo, in Chile, and, so far as my recollection of the locality carries me, about half a mile to the southward of the railway line, there is a tailing off of a ragged hill-range, which runs about north and south. In a ravine—it is too small to be called a valley—the sand which covers the greater part of that portion of Chile has, blown doubtless by the sea-breeze, been carried up the gully to which I refer, and lies there at a slope equal to the flowing angle of dry sand. The place is locally known by the name of "El Punto del Diabolo," as, given conditions of wind and weather, which time did not allow me to study, a low moaning sound, varying in intensity, can be heard for quite a quarter of a mile away. Amongst the superstitious natives the place is avoided. Thinking it worth a visit, I went there with the late Mr. Edwards, who was then the British Consul in that district. On our arrival we found that the sands were quite silent, but on making a glissade down the slope a gradually increasing "rumble" was heard, which increased in volume as the sand slid away before us. As the sound increased we were subjected to an undulatory movement, so decided that it was difficult

© 1909 Nature Publishing Group